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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/849,574 | 05/04/2001 | Hyun-Jung Lee | 678-627 (P9659) | 9697 |

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Paul J. Farrell
DILWORTH & BARRESE, LLP
333 Earle Ovington Blvd.
Uniondale, NY 11553

EXAMINER

HOOSAIN, ALLAN

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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2645

DATE MAILED: 06/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/849,574

Applicant(s)

LEE, HYUN-JUNG

Examiner

Allan Hoosain

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 May 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Bharatia** (US 6,138,007) in view of **Bijanki et al.** (US 6,539,223).

As to Claim 1, with respect to Figures 1-3, **Bharatia** teaches a homezone call forwarding service method comprising the steps of:

(1) sending, by an origination mobile switching center (MSC), 18, location request invoke message to a home location register (HLR), 54, of a terminating subscriber in order to acquire location information of the terminating subscriber, when an originating subscriber, 34, calls the terminating subscriber, 66, (Figure 1 and Col. 4, lines 2-8);

(2) analyzing, by the HLR, number information included in the received location request invoke message to determine whether the number is a number for a homezone or a number for a non-homezone, and sending a routing information request invoke message to a terminating MSC, in order to acquire routing information, said routing information request invoke message including a parameter for inserting number identification information and a termination trigger

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parameter for defining a termination trigger point presently activated for the subscriber (Col. 4, lines 28-39);

(3) upon receipt of the routing information request invoke message, assigning, by the terminating MSC, a temporary local directory number (TLDN) for routing, registering a parameter having the number identification information and the termination trigger parameter in a visitor location register (VLR), and sending a routing information request result message having a routing information parameter to the HLR of the terminating subscriber (Col. 4, lines 8-10 and 40-47);

(4) upon receipt of the routing information request result message, sending a location request result message to the originating MSC by the HLR of the terminating subscriber;

(5) detecting, by the originating MSC, a local directory number (LDN) included in the location request result message, routing the detected local directory number to the terminating MSC, and performing a call setup process (Col. 4, lines 48-55);

(6) after call setup, determining by the terminating MSC whether to redirect a present call, by consulting the termination trigger parameter and a calling feature directive parameter registered in the VLR in a termination-inactivated state (Col. 4, lines 56-64);

(7) sending, by the terminating MSC, a redirecting request invoke message to the originating MSC, when it is determined to redirect the present call (Col. 5, lines 5-18);

(8) upon receipt of the redirecting request invoke message from the terminating MSC, sending, by the originating MSC, a transfer number request invoke message to the HLR of the terminating subscriber in order to determine a call forwarding number (Col. 5, lines 19-25); and

(9) analyzing, by the HLR of the terminating subscriber, the transfer number request invoke message to determine to which phone number the present call should be redirected, searching for a call forwarding number of the terminating subscriber for a call forwarding service, inserting the searched call forwarding number in the transfer number request result message, and then sending the transfer number request result message to the originating MSC (Col. 5, lines 26-33);

Bharatia does not teach the following limitations:

- i. home zone
- ii. non-home zone
- iii. said redirecting request invoke message including the parameter for inserting number identification information
- iv. said transfer number request invoke message including the parameter for inserting number identification information

Bijanki teaches an analogous telecommunications systems which stores multiple telephone numbers for a mobile unit associated with different geographic locations for call forwarding and terminating calls (limitations iii and iv) (Col. 1, line 65 through Col. 2, line 6). In addition, **Bijanki** teaches that telephone numbers can be associated with a 'home cell sector' (home zone) and another telephone number with anywhere else (non-home zone) (limitations i and ii) (Col. 4, lines 6-25 and Col. 5, lines 6-22). Having the cited art at the time the invention was made, it would have been obvious to one of ordinary skill in the art to add home cell sector capability to **Bharatia's** invention for forwarding calls using different telephone numbers as taught by **Bijanki's** invention in order to provide different prices for services associated with the telephone numbers.

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As to Claim 2, **Bharatia** teaches the homezone call forwarding service method as claimed in claim 1, wherein, the originating MSC detects the call forwarding number from the transfer number request result message and restarts a termination process (Col. 5, lines 19-25).

As to Claim 3, **Bharatia** teaches the homezone call forwarding service method as claimed in claim 1, wherein, the termination trigger parameter is a parameter for defining a termination trigger point presently activated for the terminating subscriber (Col. 5, lines 5-13).

As to Claim 4, **Bharatia** teaches the homezone call forwarding service method as claimed in claim 1, wherein the termination-inactivated state is one of a busy state, a no-answer state and a no-page response state (Col. 4, lines 48-55).

As to Claim 5, **Bharatia** teaches the homezone call forwarding service method as claimed in claim 1, wherein, the parameter for inserting number identification information is an operational contact (a leg information parameter) (Col. 4, lines 33-38).

As to Claim 6, **Bharatia** teaches the homezone call forwarding service method as claimed in claim 5, wherein the redirecting request invoke message includes a resume call handling (redirecting reason parameter) and a forward to mobile station (leg information parameter) (Col. 5, lines 23-33).

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As to Claim 7, **Bharatia** teaches the homezone call forwarding service method as claimed in claim 5, wherein the transfer number request invoke message includes the leg information parameter and the termination trigger parameter (Col. 5, lines 19-33).

Response to Arguments

3. Applicant's arguments with respect to claims 1-7 in the 5/14/04 Remarks have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Akhavan (US 5,673,308) teach call forwarding using home zones and office zones.

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any response to this final action should be mailed to:

Box AF

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9314, (for formal communications; please mark "EXPEDITED
PROCEDURE")

Or:

(703) 306-0377 (for customer service assistance)

Hand-delivered responses should be brought to Crystal Park II, 2121
Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the
examiner should be directed to **Allan Hoosain** whose telephone number is (703) 305-4012. The
examiner can normally be reached on Monday to Friday from 8 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's
supervisor, **Fan Tsang**, can be reached on (703) 305-4895.

Any inquiry of a general nature or relating to the status of this application or proceeding
should be directed to the Group receptionist whose telephone number is (703) 305-3900.



Allan Hoosain
Primary Examiner
6/2/04